

ACOUSTIC BACKING MATERIAL FOR
SMALL-ELEMENT ULTRASOUND
TRANSDUCER ARRAYS

ABSTRACT OF THE DISCLOSURE

A fine-pitch acoustic transducer array that has a backing made of acoustically attenuative material. The backing material is prepared by homogeneously combining a matrix component and filler components having an average particle size less than one-fifth (preferably less than one-tenth) of the smallest dimension of the elements making up the array. In certain embodiments, the acoustically attenuative material comprises 25-45 wt.% tungsten particles, 15-35 wt.% silicone particles and 40-60 wt.% epoxy.